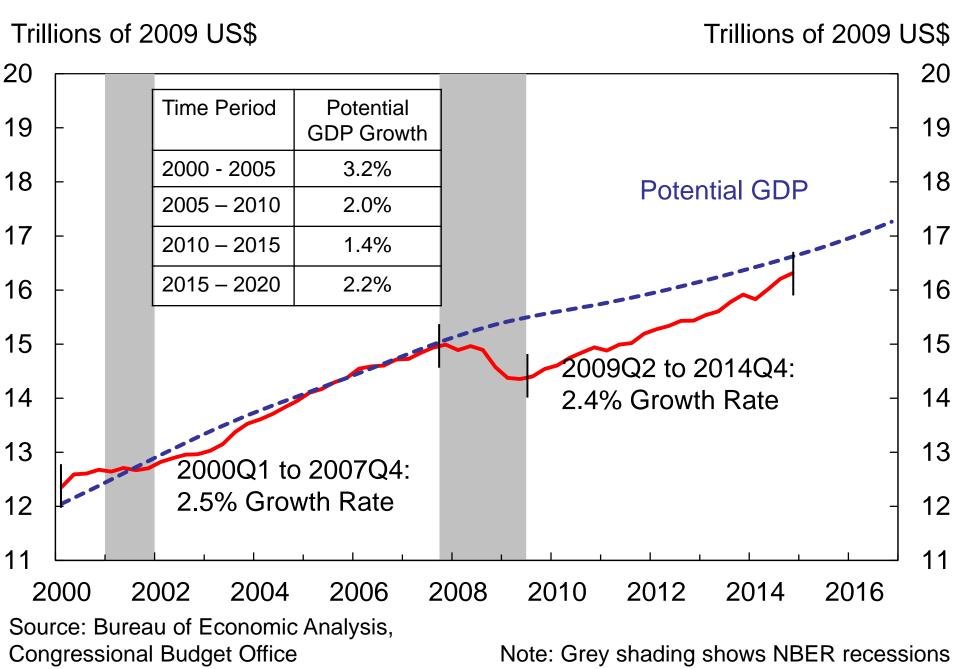


- Real consumer expenditures rose robustly in 2014Q4, despite a small decline in December.
 - Consumer spending over 2014H2 was supported by an improving labor market, increasing household net worth, and declining energy prices.
- After two solid quarters, the pace of business equipment spending softened in 2014Q4.
- Improvement in the housing market remains subdued. Single-family housing starts and permits rose gradually at the end of 2014 after a pause in mid-year, but still are at quite low levels.

- Payroll growth again was solid in January. The unemployment rate rose slightly to 5.7%, but the labor force participation rate and employmentpopulation ratio both increased.
 - Even though the pace of improvement in the labor market has picked up, wage growth remains sluggish.
- Inflation fell over the latter half of 2014, remaining below the FOMC's longer-term objective.
- Financial markets continued to display notable volatility, reflecting divergent economic outlooks and central bank policies, fluctuating oil prices, and geopolitical risks.

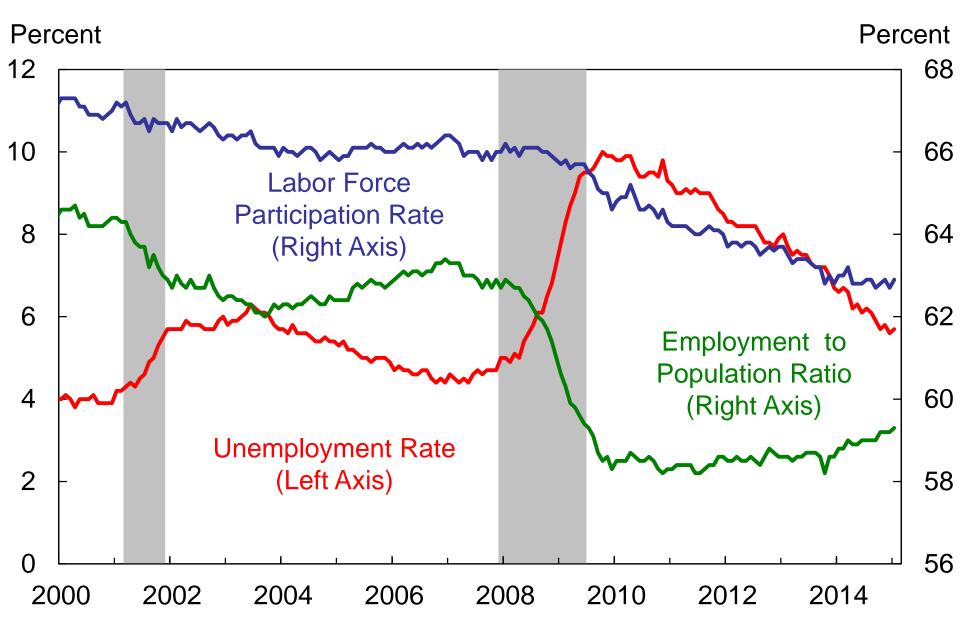
GDP



Output is moderately below its potential level

- Compared to previous expansions, GDP growth has been subdued for most of this expansion; however, it has picked up significantly in 2014Q2 – Q4.
- The gap between GDP and the Congressional Budget Office's measure of potential GDP was a little less than 2% as of 2014Q4.
 - Some of the narrowing of the gap reflects recent reductions in the estimates of potential GDP.
- Historically, inflation has tended to be restrained if the economy is operating below potential.

Labor Market Indicators

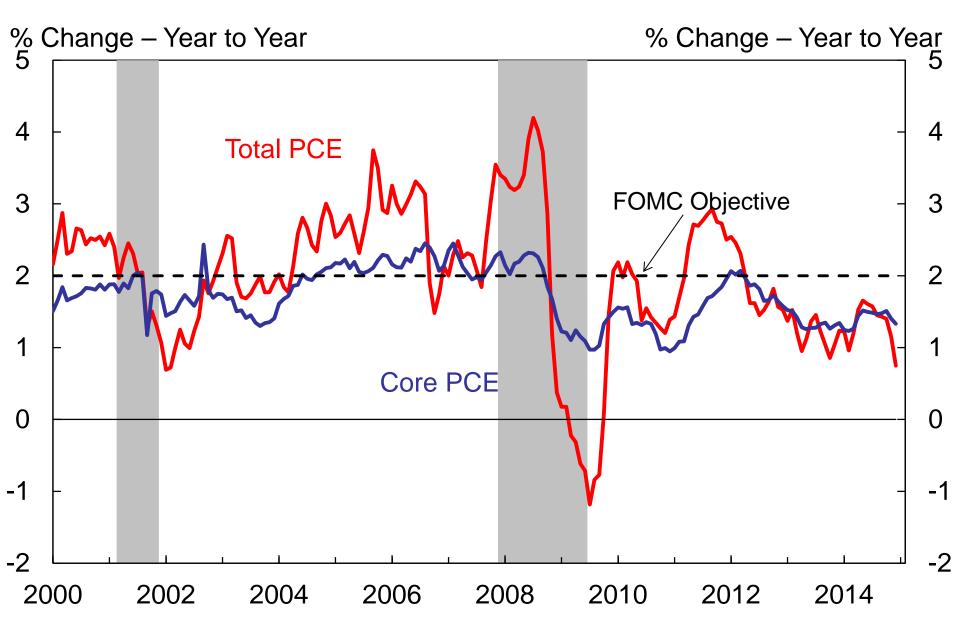


Source: Bureau of Labor Statistics

The labor market continued to improve

- The 12-month change in total nonfarm payroll employment through January 2015 was 3.2 million (2.3%), the highest since May 2000.
- The unemployment rate was 5.7% in January. The labor force participation rate (LFP) was fairly stable over the past year after falling considerably over 2008-13.
 - Since late 2007, the bulk of the LFP decline came from workers in their prime working-age years.
- The employment-to-population ratio rose modestly over the past year, but was still only equal to its level in mid-2009.

PCE Deflator



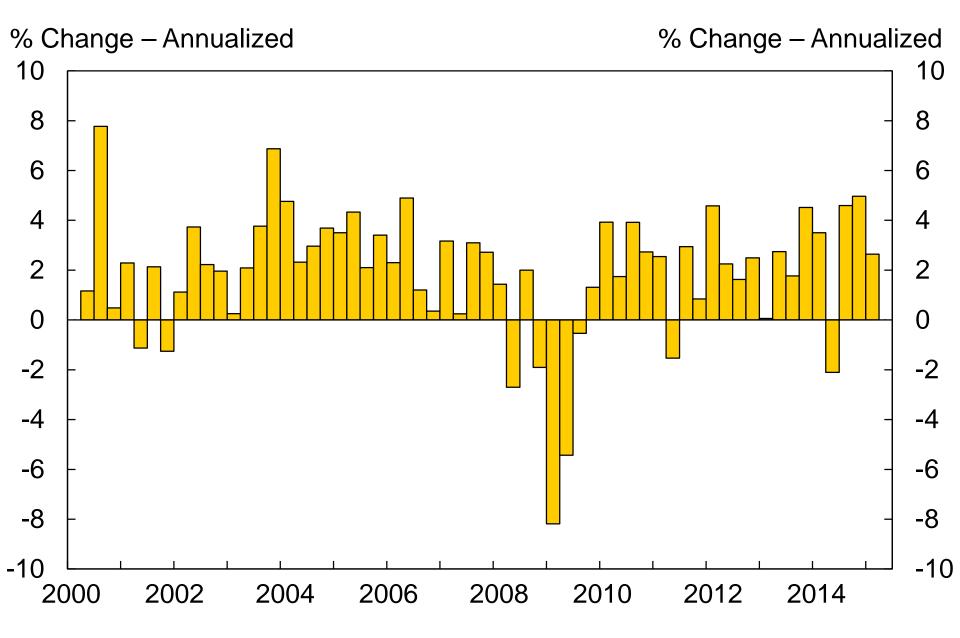
Source: Bureau of Economic Analysis

Inflation is low and slowing

 Total PCE inflation fell in 2014H2 due to declines in energy and goods prices. While core PCE inflation (which excludes volatile food and energy prices) has been steadier, it has also fallen modestly in recent months.

- On a 12-month basis, both measures are significantly below the FOMC's longer-run objective of 2%.
- Movement of inflation toward the FOMC's longer-run objective will likely be restrained in the short run by the stronger dollar and lower energy prices.

GDP Growth

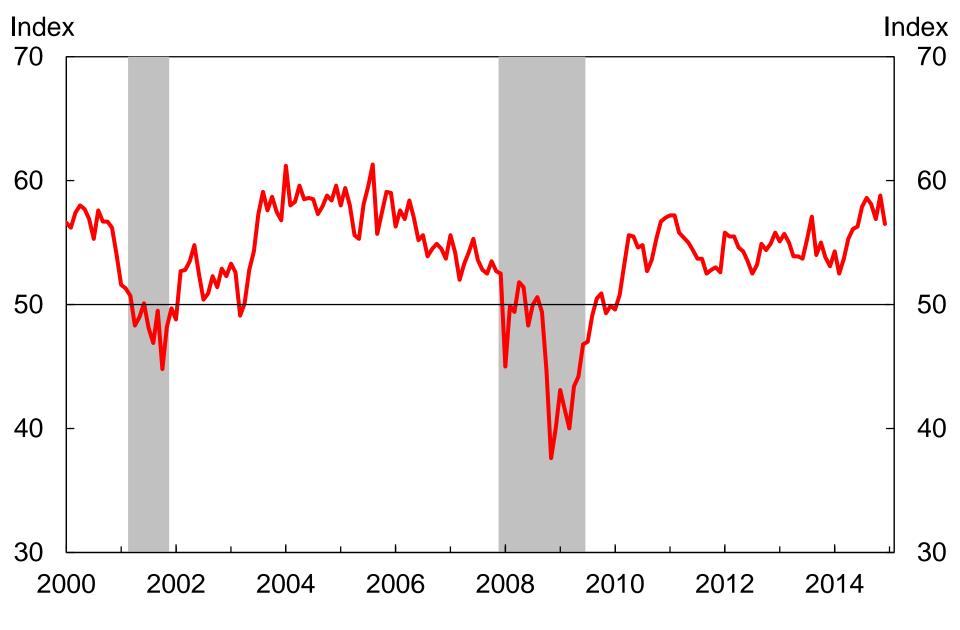


Source: Bureau of Economic Analysis

Output growth slowed in Q4

- GDP growth in Q4 was 2.6% (annual rate), following a 5% increase in Q3.
- Activity in Q4 saw strength in consumer spending on goods and services, which was partially offset by weaker growth in business fixed investment, a wider trade deficit, and a decline in defense spending.
- The GDP data suggest a little less momentum for the economy heading into 2015Q1.

ISM Non-Manufacturing Index

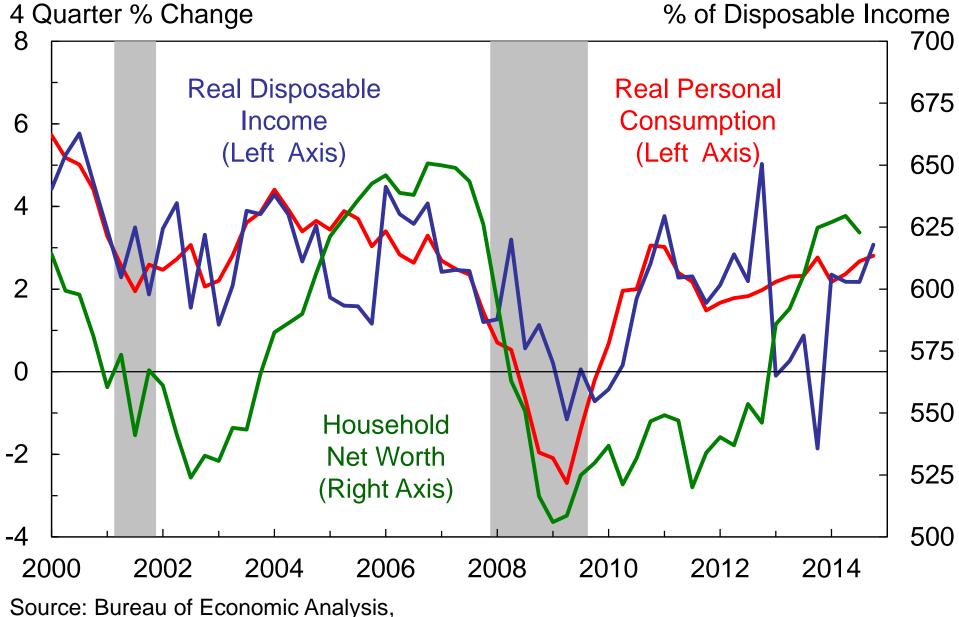


Source: Institute for Supply Management

Non-manufacturing sector continues to expand

- The ISM non-manufacturing index has fluctuated within the high 50s since 2014Q2, suggesting somewhat stronger GDP growth than we have seen for most of the current expansion.
 - The private service sector represents 68% of the output of the U.S. economy.
- The index has four equally weighed components.
 - The "employment" component of the index has weakened since October, but the other components (business activity, new orders, and supplier deliveries) have remained strong.

Disposable Income, Consumption, and Wealth



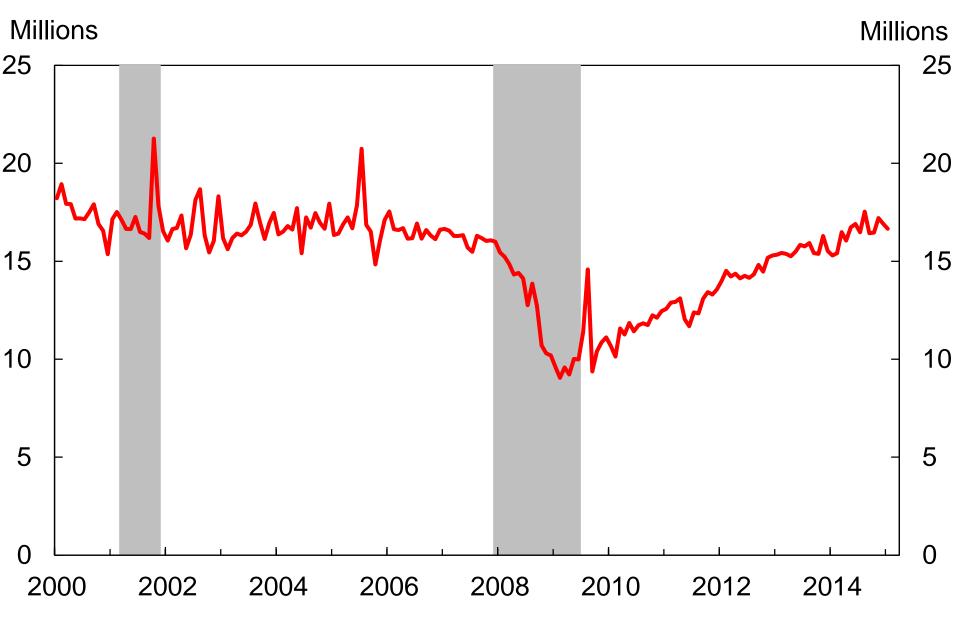
Federal Reserve Board

Consumer spending gains strength in Q4

- Despite a set-back in December, consumer spending was strong in Q4, supported by improving labor market conditions, high net worth, and declining energy prices.
- While uneven on a monthly basis, consumer spending in 2014 grew at its highest rate since 2006.

 The personal saving rate increased in December, bringing the 2014Q4 average to 4.6%.

Total Light Vehicle Retail Sales



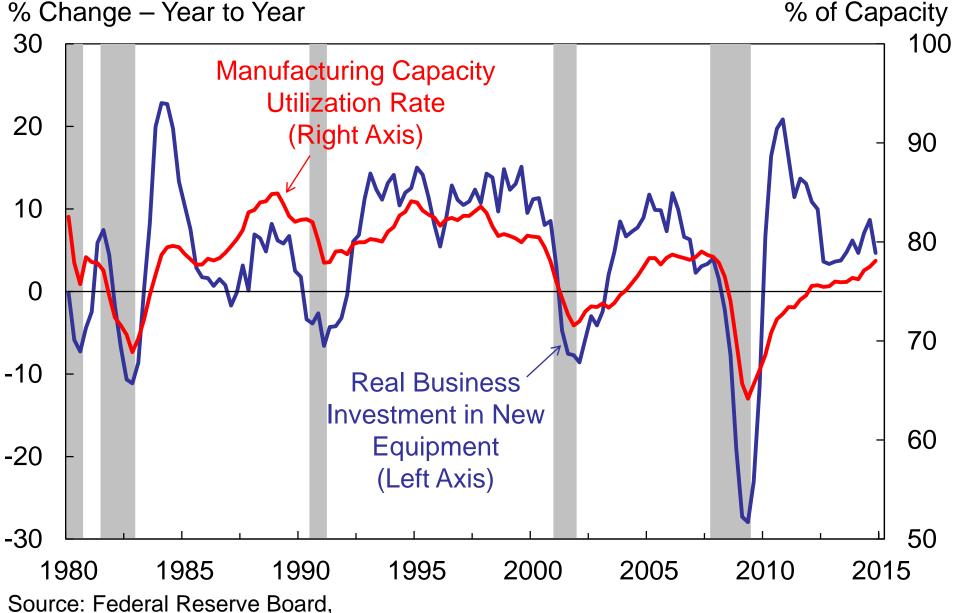
Source: AUTODATA

Vehicle sales remain strong

- Light motor vehicle sales in January were 16.66 million units (SAAR), a decline from December's 16.92 reading.
 - Sales of light trucks represent about 55% of the sales mix.
 - Sales have benefited from favorable credit conditions and recent declines in gasoline prices.

- Light motor vehicle sales have risen steadily from the previous low of 9 million units in early 2009.
 - Sales for 2014 have surpassed the level reached in 2007.

Equipment Investment and Capacity Utilization



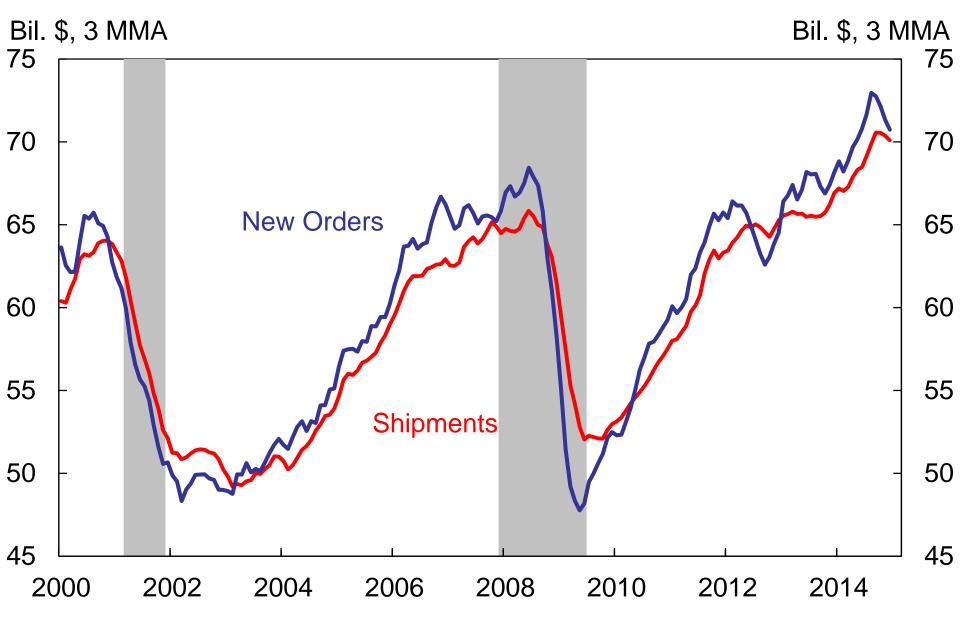
Bureau of Economic Analysis

Growth of equipment spending slowed in Q4.

- Growth of real business investment in new equipment slowed in 2014Q4 after rising briskly in the previous two quarters.
- Historically, business equipment spending and the manufacturing capacity utilization rate have moved in the same direction.

 The manufacturing capacity utilization rate rose to 78.4% in November and December, the highest level since December 2007.

Nondefense Capital Goods ex. Aircraft

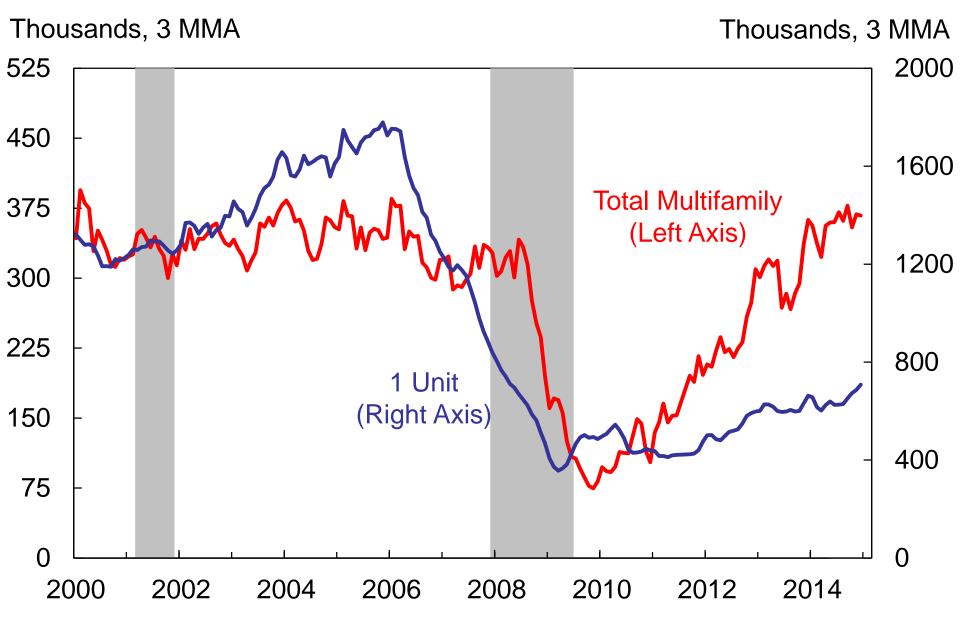


Source: Census Bureau

Capital goods orders faltering in recent months

- Data on new orders and shipments of nondefense capital goods excluding aircraft provide current information on business equipment spending and exports of capital goods.
- New orders for such equipment have fallen for four consecutive months through December, while shipments rose modestly in December after falling in the previous two months.
 - While both series are volatile and subject to large revisions, their recent performance is signaling some downside risk for business investment in new equipment as well as exports of capital goods.

Housing Starts

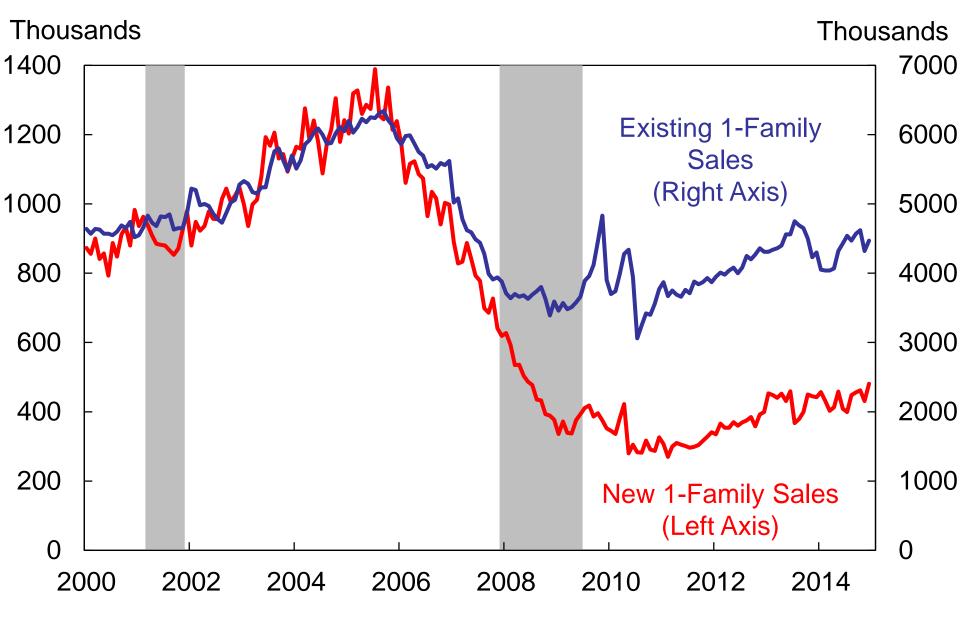


Source: Census Bureau

Housing construction is recovering slowly

- After a pause in mid-2014, single-family housing starts have begun to rise gradually, but they remain well below their levels of the early 2000s.
 - Lower mortgage rates and continued labor market improvement are factors in the recent rise.
- Starts of multi-family units have leveled off recently near pre-recession levels.
 - Mainly comprise rental apartments.
- Residential investment was about 3¼% of GDP in 2014Q4, a little above that of previous quarters.
 - It was more than 6½% of GDP in 2005.

New and Existing Home Sales

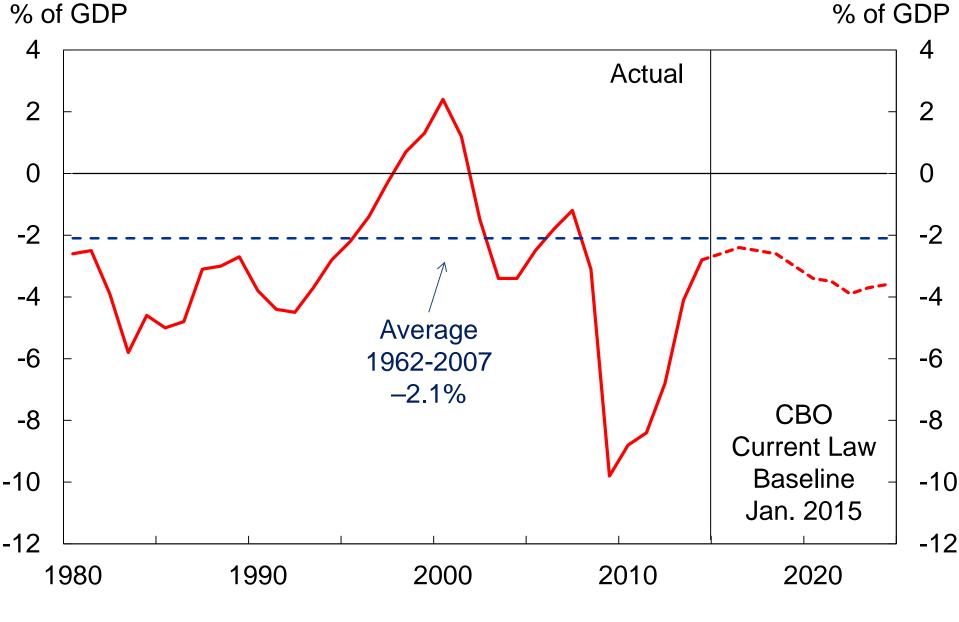


Source: Census, NAR

Recovery in home sales remains gradual

- After declining in late 2013, existing single-family home sales have slowly increased.
- New single-family home sales have shown little improvement in the past two years.
- While both new and existing home sales have surpassed pre-recession levels, they remain well below their levels in the mid-2000s.

Federal Deficit

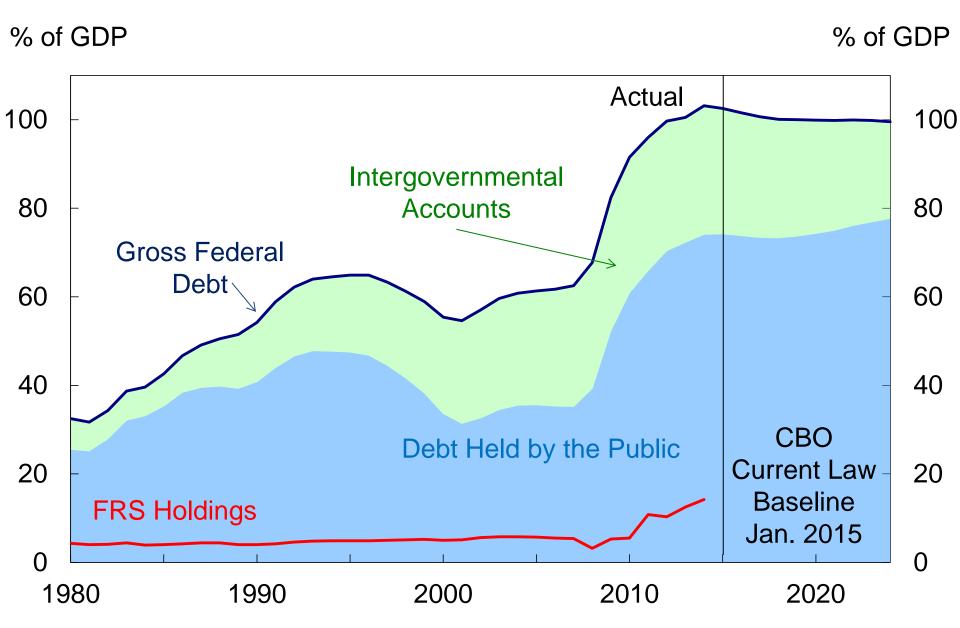


Source: Congressional Budget Office

Recent sharp decline in federal deficit

- Federal deficit soared from 1.1% of GDP in Fiscal Year (FY) 2007 to 9.8% of GDP by FY2009.
 - Reflected impacts of the financial crisis and ensuing Great Recession, as well as fiscal policy actions to stimulate economy.
- By FY2014 the deficit had declined to 2.8% of GDP.
 - Reflected reduction of outlays combined with increase of revenues.
- According to most recent CBO "current law" baseline, deficit will gradually rise to around 4% of GDP by FY2025:
 - Reflects increase of revenues, but larger increase of outlays mainly due to demographic trends.

Federal Debt

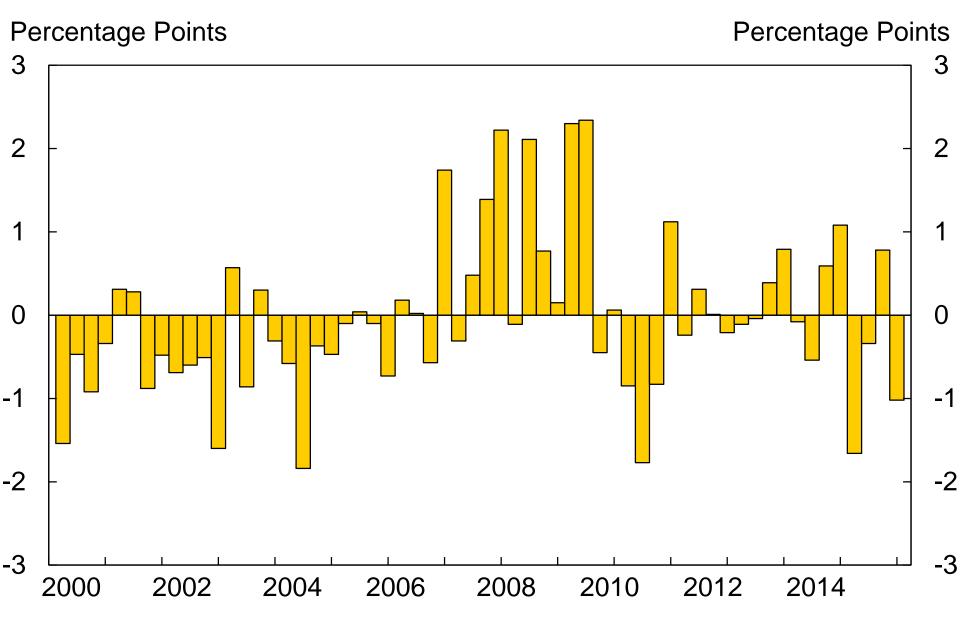


Source: Congressional Budget Office

Stable debt-to-GDP ratio expected in near-term

- Gross federal debt consists of debt held by private investors (the public, including the Federal Reserve System) and debt held in various federal government trust funds (intergovernmental accounts).
- Gross federal debt rose from 62.5% of GDP at the end of FY2007 to 103.3% of GDP at the end of FY2014.
 - Bulk of that increase was in debt held by the public.
- Based on CBO baseline, debt held by public will stabilize at just under 75% of GDP for roughly the next five years before rising again as deficits start to increase.

Net Exports: Contribution to GDP Growth

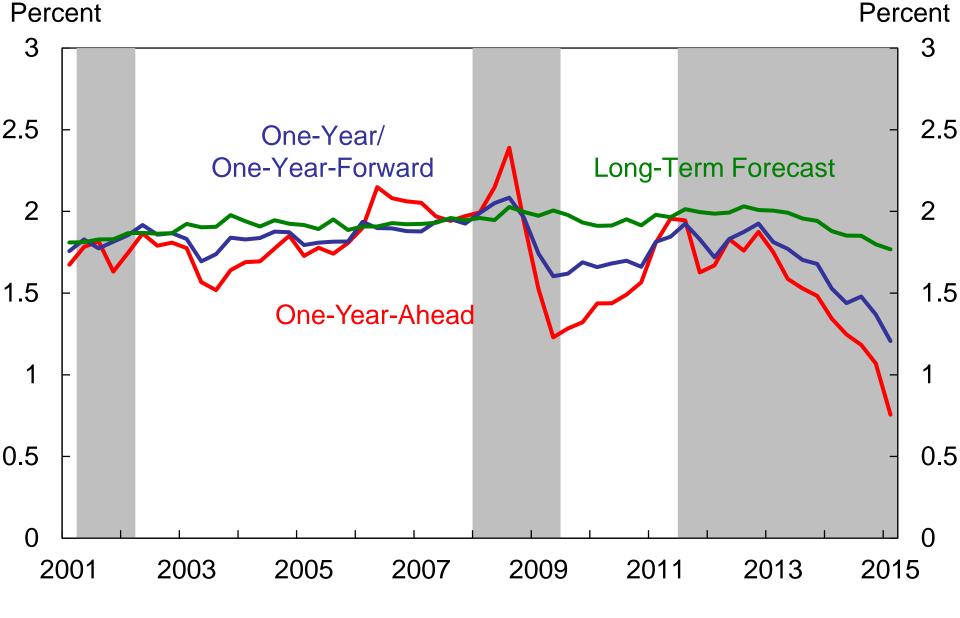


Source: Bureau of Economic Analysis

Net exports were a significant drag on growth

- Net exports subtracted 1.0 percentage point from GDP growth in 2014Q4, following a 0.8 percentage point contribution in Q3.
- Export growth in Q4 was low following moderate growth in Q3.
- Q4 import growth was unusually high after a small dip in Q3.
 - Much of this was due to a rebound in oil imports spurred by the decline in oil prices.

Mean Forecasts of Euro-Area Inflation

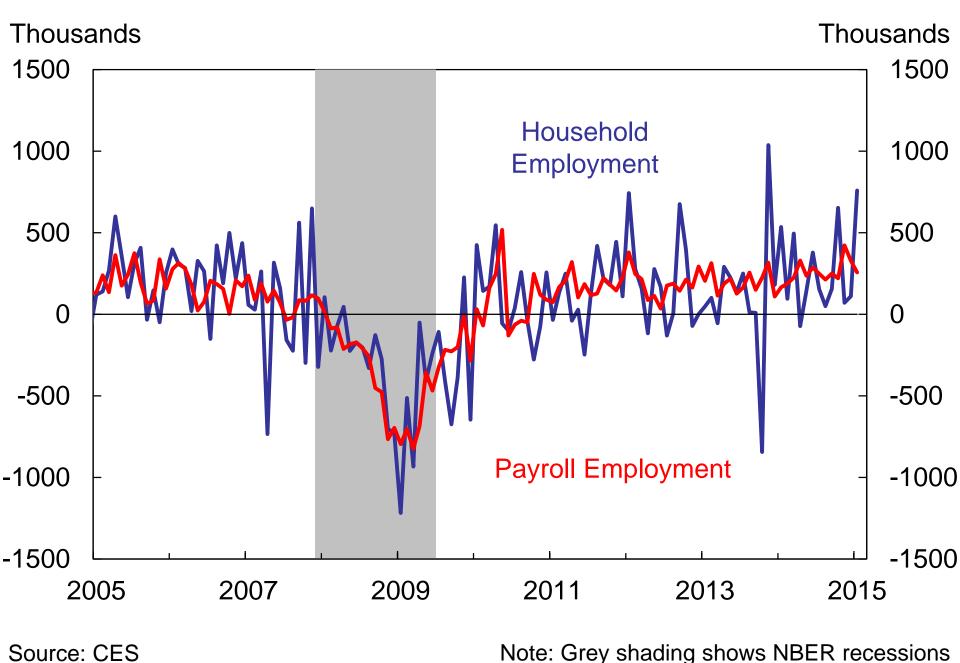


Source: European Central Bank

Euro-Area inflation expectations have declined

- Survey-based measures of inflation expectations have declined at both short- and long-term horizons.
 - ECB's Survey of Professional Forecasters is conducted quarterly.
- The decline at the long-term horizon (5 years ahead) suggests current low inflation environment is likely to persist.
- ECB's Governing Council aims to maintain inflation below, but close to, 2% over medium term:
 - Mean long-term forecast has been below 2% since 2013Q4 and is reported at 1.8% in most recent 2015Q1 survey.

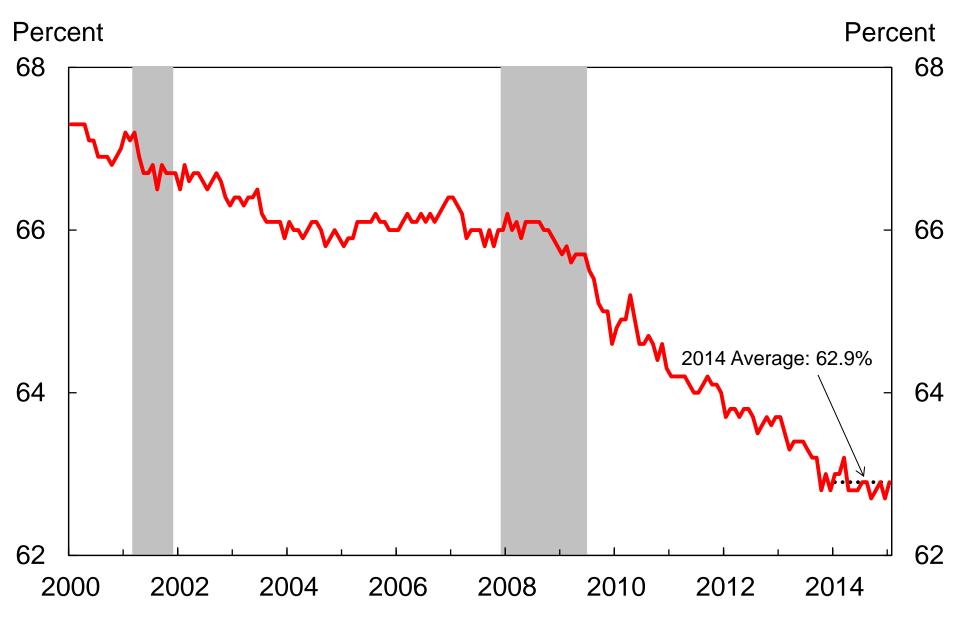
Monthly Change in Total Payroll and Household Employment



Pick up in the pace of employment gains

- Nonfarm payroll employment increased by 257,000 in January.
 - Payroll employment increased on average by 336,000 in the last three months, faster than the average monthly gain in the first ten months of 2014 (+236,000).
- Household employment increased by 759,000 in January.
 - Household employment increased on average 314,000 in the last three months, again faster than the average monthly gain in the first ten months of 2014 (+259,000).

Labor Force Participation Rate



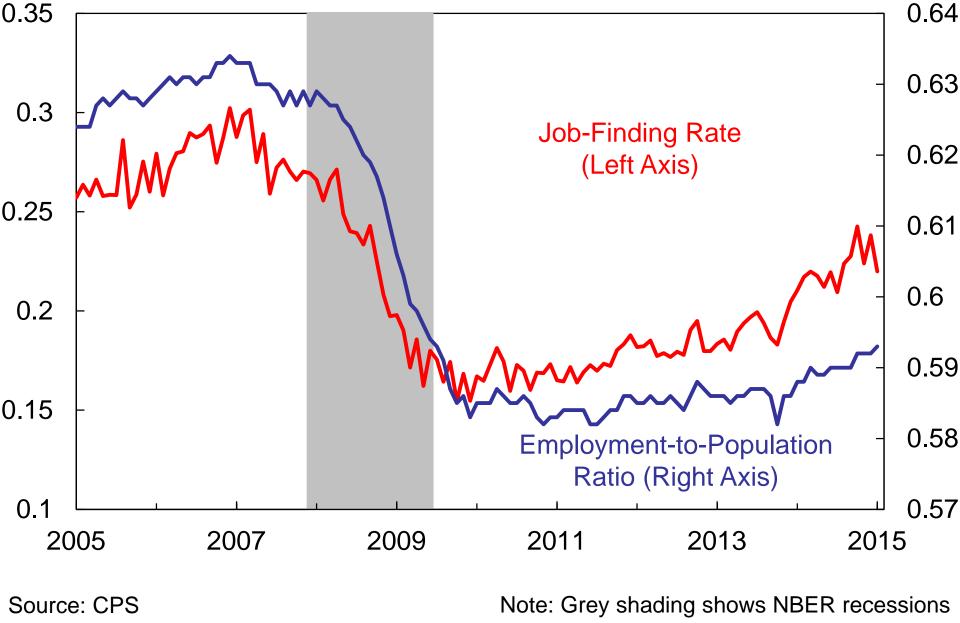
Source: Bureau of Labor Statistics

Participation rate has been stable

 The labor force participation rate increased from 62.7% to 62.9% in January, reversing December's decline.

 A rise in participation of prime-age workers from 80.8% to 81.1% accounted for most of this increase.

 The labor force participation rate has been essentially flat since the beginning of 2014 at slightly below 63%.



Job-Finding Rate and Employment-to-Population Ratio

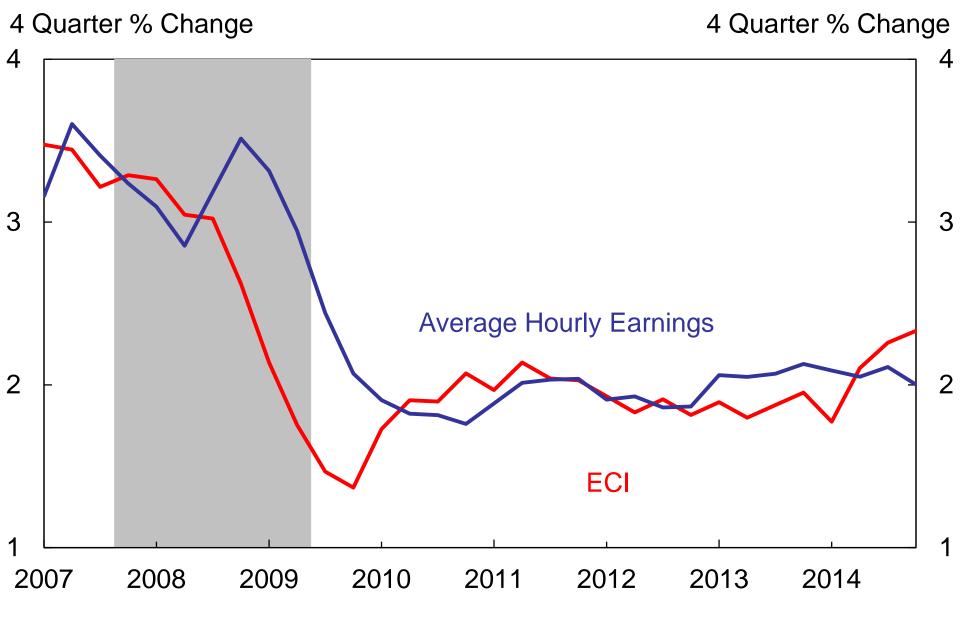
Rate

Ratio

Workers are better able to find jobs

- The job-finding rate (unemployment-to-employment transition rate) improved substantially over 2014.
- This rate is now about equal to the labor force exit rate (unemployment to non-participation transition rate).
 - An unemployed worker now is equally likely to find a job than leave the labor force.
- After remaining below 59% through most of this expansion, the employment-to-population ratio increased to 59.3% in January. This increase is due in part to the improvement in the job-finding rate.

Employment Cost Index (ECI) and Average Hourly Earnings



Source: CPS, Bureau of Labor Statistics

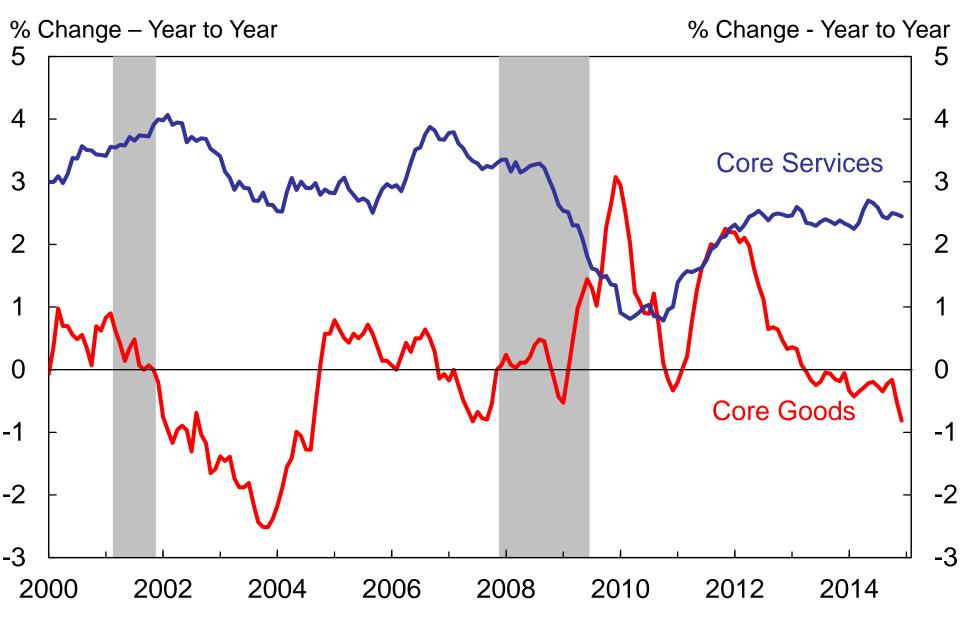
atistics Note: Grey shading shows NBER recessions

Wage growth remains subdued

- Average hourly earnings increased by 0.5% in January and 2.2% over the past 12 months.
 - The 12-month change is at the top of its range since the end of the recession but well below pre-recession levels (3.3% in November 2007).

 The employment cost index showed higher growth recently, but it is still soft compared to pre-recession increases.

CPI Inflation: Core Goods and Core Services



Source: Bureau of Labor Statistics

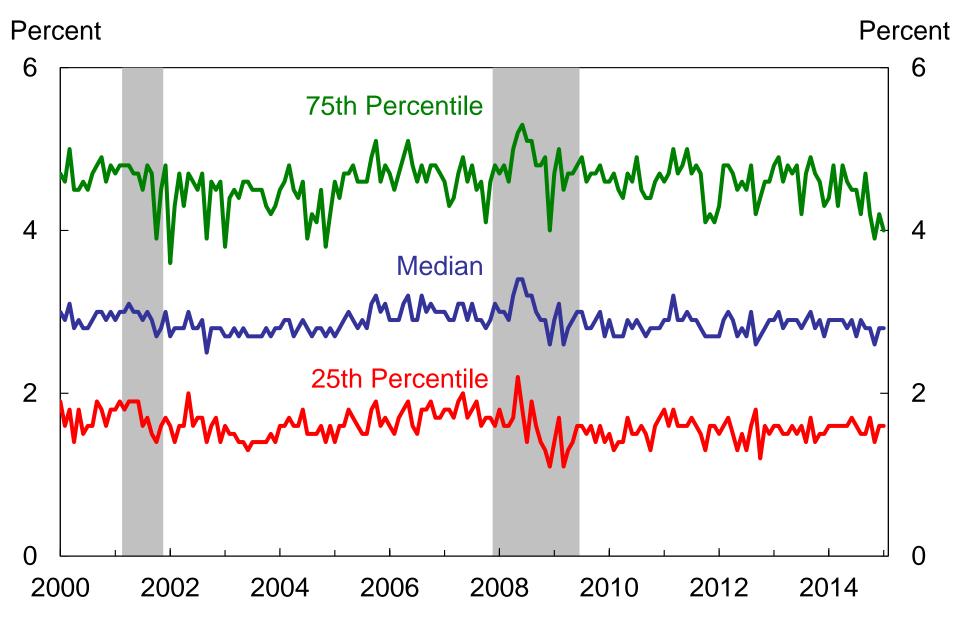
Note: Grey shading shows NBER recessions

Pace of core goods deflation accelerates

- Core CPI index was flat in December and the corresponding year-over-year increase fell to 1.6%.
- Core services inflation slowed, but on a 12-month basis it remains above 2013 levels.

 Deflation in core goods prices accelerated further in December, reaching a 12-month change of -0.8%, its lowest reading since September 2007.

Michigan Inflation Expectations: 5-10 Years Ahead



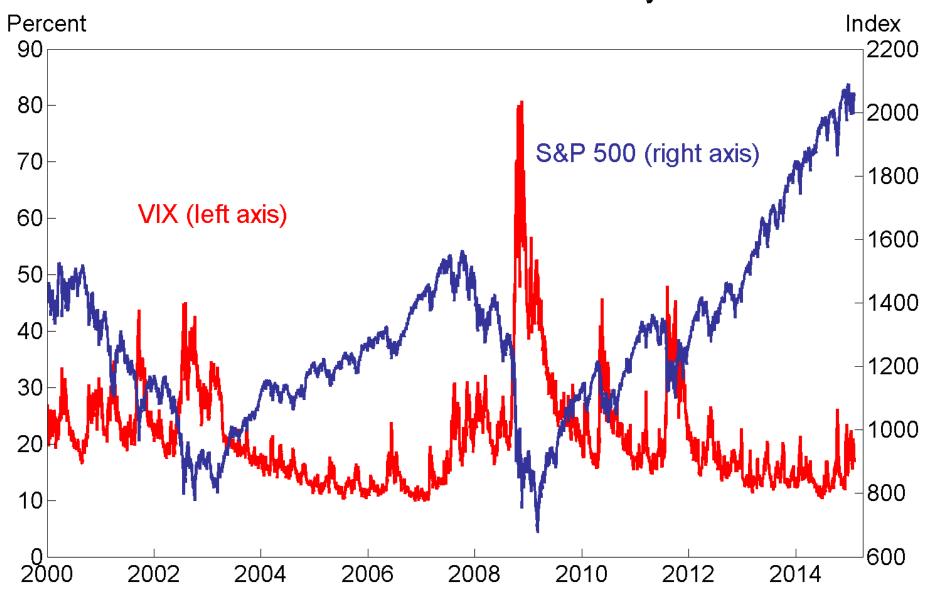
Source: University of Michigan

Note: Grey shading shows NBER recessions

Long-term inflation expectations remain stable

- Median long-term (5-10 years ahead) inflation expectations remained unchanged.
 - Median was 2.8% in January, unchanged from December.
 - The 25th percentile was unchanged from December at 1.6%, but the 75th percentile declined from 4.2% to 4.0%.
- In contrast, one-year ahead inflation expectations (not shown) showed a meaningful decline.
 - Median fell from 2.8% in December 2014 to 2.5% in January, its lowest reading since September 2010.

S&P 500 Index: Price Level and Volatility



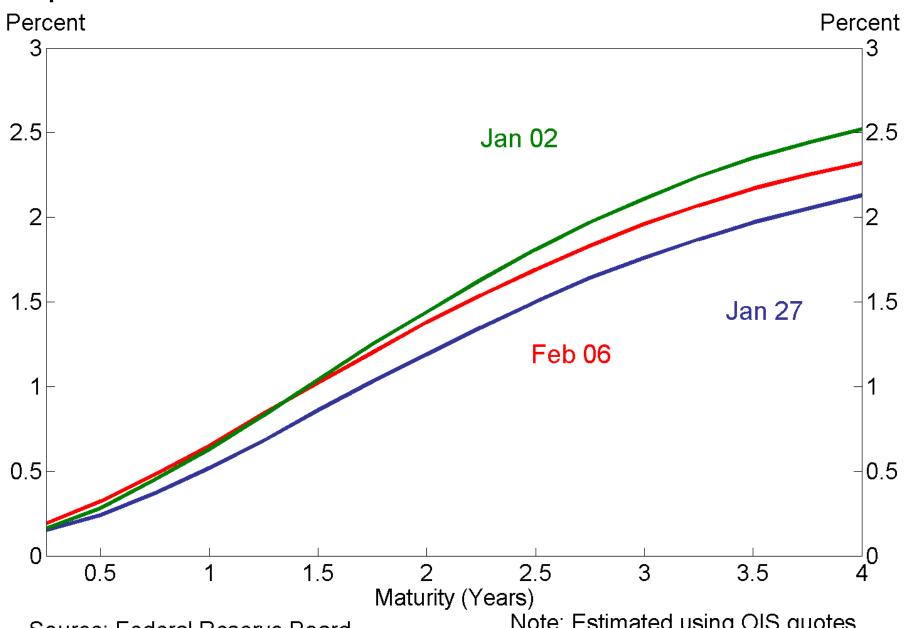
Source: Bloomberg

US equity markets remain near record highs

- Broad US stock market indices and implied volatility measures have been flat, on net, since the beginning of the year.
 - The S&P stock market index remains near the record highs recorded in December of last year.

 Reemerging turmoil in Europe, related to the outcome of the Greek elections, led to some volatility in equity markets in January.

Expected Fed Funds Rate



Source: Federal Reserve Board

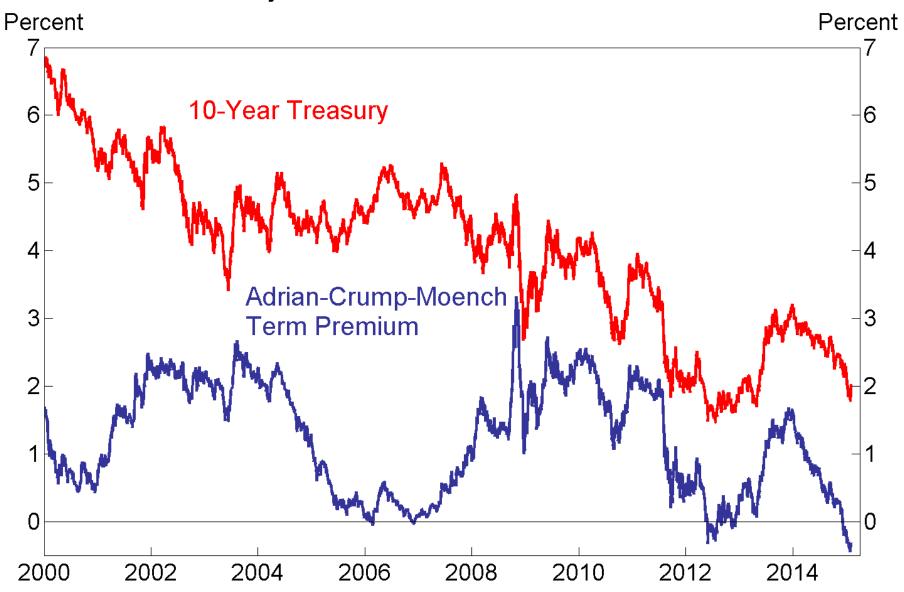
Note: Estimated using OIS quotes.

Lower implied Federal Funds Rate path

 The expected path for the Federal Funds Rate implied by quotes on overnight index swap quotes has shifted lower since the beginning of the year.

 The decline was most pronounced leading up to the FOMC meeting on January 28th, but has since partially retraced reflecting in part the strong January labor market report.

10-Year Treasury and Term Premia



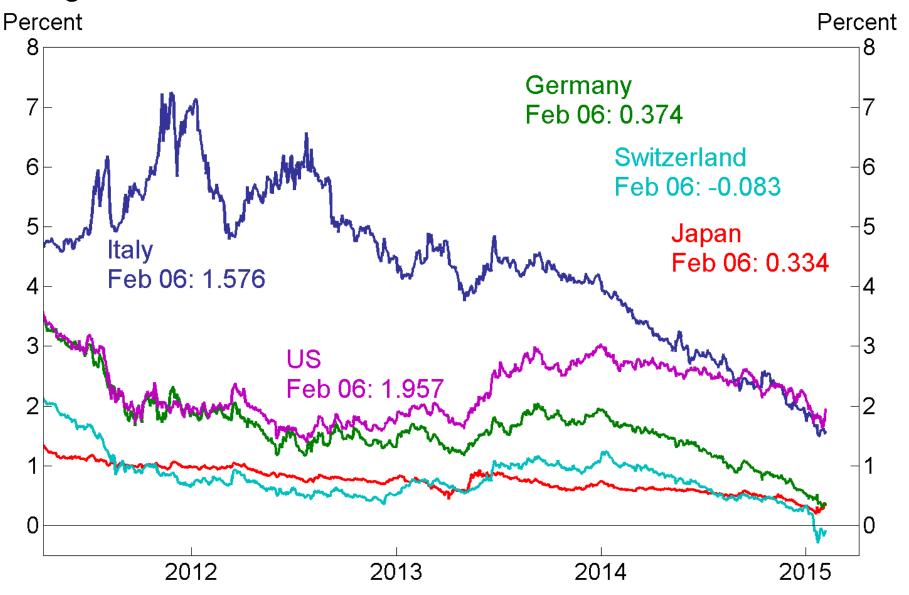
Source: FRBNY calculations, Federal Reserve Board

Note: Zero-coupon yield.

Long-term Treasury yields stay at very low levels

- 10-year Treasury yields fell further in January, reaching levels last seen before the 2013 "taper tantrum" episode. Some of the declines reversed following the strong employment report.
- Most of the yield declines over the past year are associated with lower term premia (as implied by the Adrian-Crump-Moench model), which reached historical low levels in January.

Long Term Yields in Advanced Economies



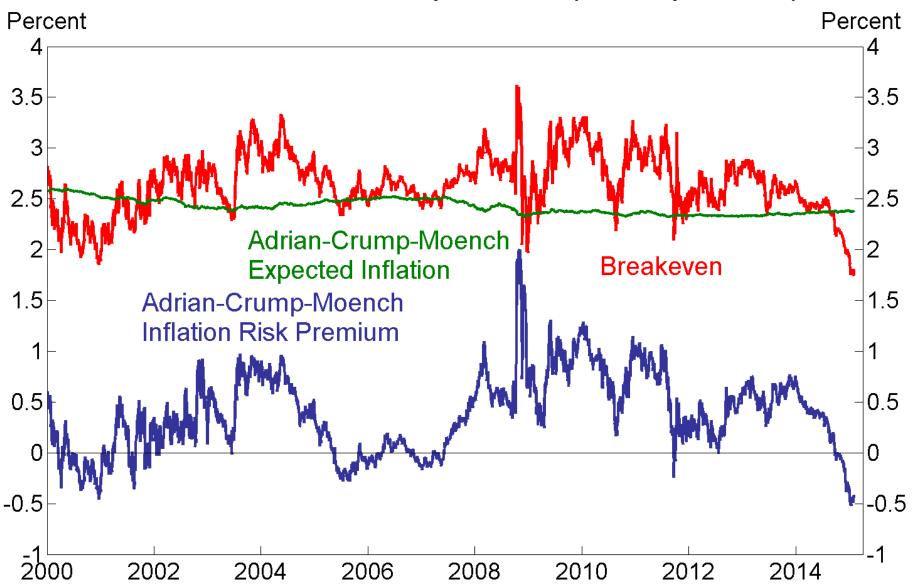
Source: Bloomberg

Note: 10 year par yield for benchmark issues.

Global government bond yields trend downward

- Long-term yields in other advanced economies have followed an even stronger downward trend than their US counterparts.
- European yields have reached record lows amid low inflation readings, concerns about growth prospects, and monetary policy actions
- Notable European monetary policy actions in January:
 - ECB: announced new bond-purchase program.
 - Swiss National Bank: abandoned Euro-Swiss Franc currency floor, lowered its interest rate on sight deposits to -0.75 percent.

5-10 Year Forward Decomposition (2000-present)



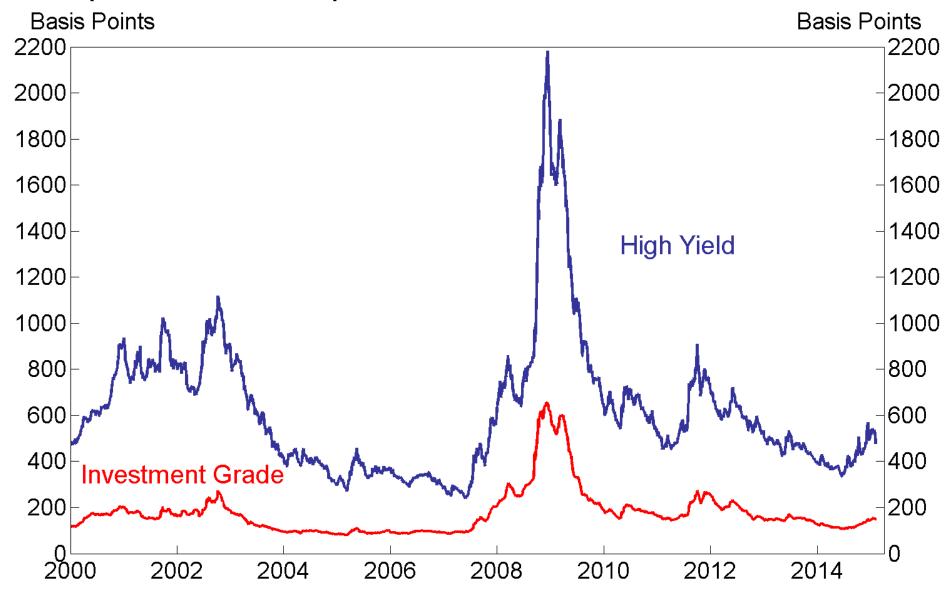
Source: FRBNY calculations

Inflation expectations remain well anchored

- Market-implied TIPS-based measures of long-term inflation expectations trended lower in January.
- These ongoing declines are mostly ascribed to timevarying inflation risk premia as measured by the Adrian-Crump-Moench model.
 - The estimated inflation risk premium has been trending downward since early 2014 and is now near all-time lows.

 Model-implied inflation expectations, instead, remain within the range that has prevailed since 2011.

Corporate Credit Spreads



Source: Merrill Lynch

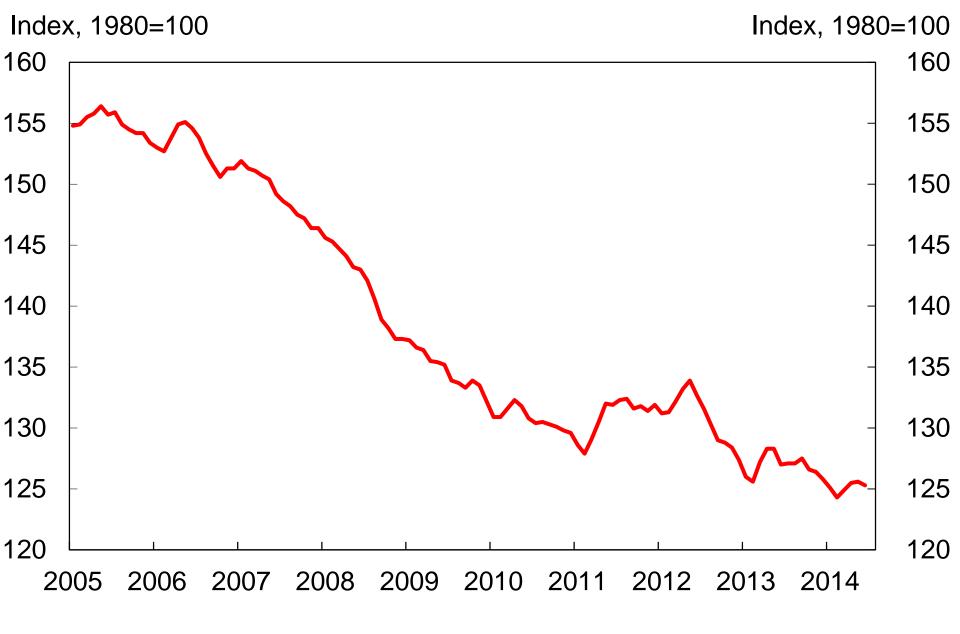
Option-adjusted spreads

Corporate spreads remain at low levels

 After widening in the last quarter of 2014, mostly as a result of weakness in the energy sector, high-yield corporate bond spreads have remained stable since the beginning of the year.

 Investment-grade and high-yield spreads are now around moderate post-2000 levels.

Puerto Rico Economic Activity Index



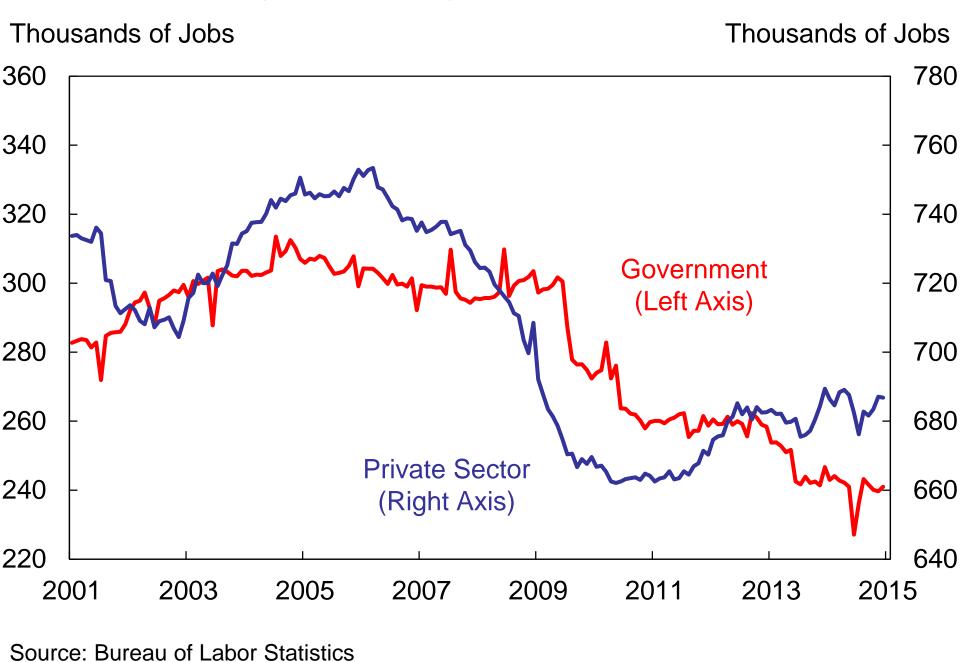
Source: Government Development Bank for Puerto Rico

Index points to steady, but weak economy

 After falling to a multi-year low last summer, an index used to measure economic activity appears to have stabilized in the last few months of 2014.

 The index is a composite of payroll employment, cement sales, gasoline consumption, and electric power generation.

Puerto Rico Payroll Employment



Little change in weak employment conditions

- Compared with mid-2000s peaks, government employment is down about 20% and near a multidecade low; private-sector employment is down 9%, but is still up 4% from its lows of 2010.
- Aside from a brief swoon last summer, overall payroll employment has been stable at low levels for the past 2 years.